

AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning on page 14, line 5 as follows:

TiO₂ carrying Cr₂O₃ and BaO was used as the combinedly used COS conversion catalyst that has both functions of O₂ removal catalyst and COS conversion catalyst. As the result, the COS concentration on the COS conversion catalyst outlet side was 15 ppm, and the COS conversion rate was 0.951.

Please amend the paragraph beginning on page 15, line 1 as follows:

Table 1 Results of experiment

| | Item | Unit | Example 1 | Example 2 | Example 3 | Comparative example | Example 4 |
|----------------------|---------------------------------|-------|-----------|---|---|--|-----------|
| Inlet gas condition | H ₂ | Vol- | | | 12.6 | | |
| | H ₂ O | Vol- | | | 3.1 | | |
| | CO | Vol- | | | 28.4 | | |
| | CO ₂ | Vol- | | | 4.2 | | |
| | N ₂ | — | | | Balance | | |
| | H ₂ S | Ppm- | | | 567 | | |
| | COS | Ppm- | | | 307 | | |
| | O ₂ | Ppm- | | | 145 | | 240 |
| | Temperature | °C | | | 300 | | 200~400 |
| Catalyst condition | Pressure | Mpa | | | 2.29 | | |
| | O ₂ removal catalyst | Kind | — | 5.5wt% Cr ₂ O ₃ /TiO ₂ | 10wt% NiO/TiO ₂ | 5.5wt% Cr ₂ O ₃ /TiO ₂ 5.5wt% Cr ₂ O ₃ /BaO/TiO ₂ | None |
| | | SV | 1/h | 11320 | | 4528 | — |
| | COS conversion catalyst | Kind | — | 4wt% BaO/TiO ₂ | (O ₂ removal catalyst was combinedly used) | 4wt% BaO/TiO ₂ | None |
| | | SV | 1/h | 7547 | | 4528 | — |
| | Sum of catalysts | SV | 1/h | | 4528 | | 30000 |
| Outlet gas component | H ₂ S | ppm-v | 862 | 860 | 859 | 764 | — |
| | COS | ppm-v | 12 | 14 | 15 | 110 | — |

| | | | | | | | |
|-------------|----------------------|---|-------|-------|-------|-------|---|
| Performance | COS conversion rate* | — | 0.961 | 0.954 | 0.951 | 0.642 | — |
|-------------|----------------------|---|-------|-------|-------|-------|---|